

Calculus Warm Up #6-2

1. Use the product rule to find f' , simplify.

$$f(x) = 3x\sqrt{5x + 2}$$

Staple and turn in Week 6
Classwork:
Warm up
Green WS

Answers to pink review:

1. Min @ $(0,0)$
 Max @ $(-1, \frac{1}{4})$ & $(1, \frac{1}{4})$

2. $-\frac{1}{c^2} = \frac{f(2) - f(\frac{1}{2})}{2 - \frac{1}{2}}$

$c = \pm 1$, but

only $c=1$ on $[\frac{1}{2}, 2]$

3. $c = \frac{2}{\sqrt{3}}$

4. Critical #: $x = -4$
 f decreases $(-\infty, -4)$
 f increases $(-4, \infty)$
 Min @ $(-4, -6)$

5. f decreasing
 on $(-\infty, \frac{3}{2})$

f increasing on
 $(\frac{3}{2}, \infty)$

Min @ $(\frac{3}{2}, -\frac{27}{16})$

6. Max $(0, 5)$

PI $(3, -13)$

Min $(6, -31)$

7a) No for ii,
 others: yes

b) PI $(\frac{1}{2}, \frac{3}{2})$

HW:

AP Practice - Ch. 4

Salmon WS